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Kathleen Baskin, P.E.
Director of Water Policy and Planning
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114
Via email

Re: ***Massachusetts Sustainable Water Management Initiative Framework Summary***

Dear Ms. Baskin:

Thank you for the opportunity to provide comments on the Massachusetts Sustainable Water Management Initiative Framework Summary (SWMI Framework), released by the Executive Office of Energy and Environmental Affairs (EEA) on February 3, 2012.

I would like to thank the Chairs of both the Technical Committee and the Advisory Committee for the opportunity to participate in this process for the past several years. I am a single person who happens to have management of a public water supply as a portion of my responsibilities as Superintendent of Public Works for the Town of Sharon. I am not an international organization, and I have no staff to assist me in review of technical documents. In fact, I was criticized for spending too much time away from the other aspects of my job in order to participate in this process.

When the SWMI meetings began some two years ago, I had high hopes for science to guide setting of policy to create an equitable implementation of the Water Management Act. However, I was disappointed to find that preconceived notions and value judgments were almost at once skewing the likely outcome.

The Water Management Act is a balancing act of many competing and conflicting goals including public water supply and environmental concerns, but also among others given equal weight, economic development and recreation. At the start of the SWMI process, I asked how "target fish" had been determined, stating that a five-year old's target fish was a pumpkinseed, not a sensitive fluvial specialist. Somehow, the judgment that an environment that supports sensitive fluvial specialists is somehow better and has more value than the environment that supports pumpkinseed. While the subset of sensitive fluvial specialists may be an adequate

surrogate for environmental health, no consideration was being given to the pumpkinseed as an adequate surrogate for the recreational component of the WMA. In other words, the policy decisions being formed by the SWMI process would only include two of the competing and conflicting goals of the Water Management Act: public water supply limited by 65 gallons per person per day, and the flow needs of a subgroup of sensitive fluvial specialists.

Further, it was clear from the very start, that change in stream flow as a consequence of groundwater withdrawals was viewed as the single most influencing factor in determining fish population viability.

With that said, I continued to attend the Technical Committee meetings for the next year and a half, during which a great deal of time was spent evaluating the results of the interim report, finding, for instance, that among evaluated factors, impervious surface had an order of magnitude greater impact on "sensitive fluvial specialists" than did change in stream flow due to net water withdrawal. That is, the presence of human beings, those of us in the room today, and the effect we have on water quality and rates of runoff and recharge has a far larger impact on the viability of the subset of sensitive fluvial specialists used to quantify environmental health.

It was also clear that in many subwatersheds, because of the presence of those of us in the room, even if water withdrawals were eliminated entirely, the subset of sensitive fluvial specialists would never return.

At some point because of this tenfold difference, I asked whether a unit decrease in impervious surface would allow a 10 unit increase in water withdrawal. I was told that impervious surface was only a surrogate of anthropogenic effect (the presence in Massachusetts of those of us in the room), but withdrawal was related one for one to stream flow decline.

Following a several month hiatus, a final report was issued which now included some slightly different factors that were identified as the primary variables: groundwater withdrawal (without return flow) and impervious surface (again as a surrogate for the presence of you and me in Massachusetts). Almost no discussion of this report took place; the results were viewed as final. Even here however, impervious surface (again as a surrogate for those of us in the room) was now deemed to be five times more responsible for sensitive fluvial specialist population decline than was groundwater withdrawal. However, by disregarding return flows, it is clear that maintaining actual stream flow is not the endgame of this policy discussion, reducing withdrawal is.

To date, many Massachusetts communities have reduced water withdrawal, some to the point of discontinuing wells, either by costly conservation efforts, enacting local by-laws that restrict outdoor irrigation or taking the extreme step of joining the MWRA (very costly). However, there has been no measureable response in fish population that has been presented.

Finally, the concept of baseline water withdrawal was introduced which seems arbitrary and would allow no movement within a category without mitigation – things must stay exactly the same unless they get better even if "safe yield" vastly exceeds baseline withdrawal. How will this concept be applied to use of the Quabbin Reservoir, a profoundly and permanently altered ecosystem. While a stream still flows through the subwatershed that holds the Town of Sharon

groundwater withdrawal points, the subwatersheds of the former towns of Dana, Enfield, Greenwich and Prescott are under some 50' of water with no hope of "mitigation".

To summarize:

- The process was skewed from the very beginning by elevating a select subset of sensitive fluvial specialists to the only factor analyzed for impact. Consequently, my original question regarding the five-year old's target fish, i.e., the other interests of the Water Management Act, which have never been addressed,

- A great deal of effort and time was spent evaluating the interim report which clearly identified anthropogenic effect, i.e., people, as by far the most important factor in determining fish population viability over change in stream flow. This despite the preconceived notion that stream flow is some kind of "master variable". Whereas the final report was issued as final despite having different variables identified as the most significant, although still showing that presence of people was the most significant variable and,

- It is most disheartening to hear that the position that alteration of stream flow is still held by environmental advocates as the most important factor influencing fish population viability despite the preponderance of evidence that has been produced by the Division of Fish and Wildlife study that continues to show that the presence of people, using impervious surface as a surrogate in the overriding culprit.

Sincerely,

Eric R. Hooper, P.E.
Superintendent of Public Works